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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/782,683	02/19/2004	Mark Julian Russell	282559US8X	5248
22850 7590 08/03/2007 OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER KRASNIC, BERNARD	
			ART UNIT 2624	PAPER NUMBER
			NOTIFICATION DATE 08/03/2007	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	Application No. 10/782,683	Applicant(s) RUSSELL ET AL.	
	Examiner Bernard Krasnic	Art Unit 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 19 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 February 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>2-19-2004 and 5-17-2007</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: Reference character 25 in Fig. 1. Reference characters 610" and 630" in Fig. 11B.
2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "78" has been used to designate both of the different delays in Fig. 3.
3. The drawings are objected to because the text box reading "-veNAM" for reference character "210" in Fig. 6 should read -- NEGNAM -- as disclosed in lines 1-2 in page 9 of the specification.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate

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changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

4. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

5. The abstract of the disclosure is objected to because it is not narrative. It consists and has been drafted as one long run on sentence, much like claim 1, which is improper. The intent of the abstract is to give a concise but brief statement of the disclosure or the invention as a whole consisting of a series of complete sentences forming a single paragraph.

Correction is required. See MPEP § 608.01(b).

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6. The disclosure is objected to because of the following informalities:

Page 1, line 2: The -- CROSS REFERENCE TO RELATED APPLICATIONS -- section of the specification is required to be placed above the "BACKGROUND OF THE INVENTION" section to inform of any related applications, in this case the Foreign application UNITED KINGDOM 0304025.0 02/21/2003.

Appropriate correction is required.

### ***Claim Objections***

7. Claims 1-9 and 11-13 are objected to because of the following informalities:

Claim 1, line 7: "the results of a colour correction process form the input" should be -- results of a colour correction process form an input --.

Claims 2-8, line 1 respectively: "Apparatus according to " should be -- The apparatus according to --.

Claim 4, line 3: "in the region" should be -- in a region --.

Claim 9, line 6: "the results of a colour" should be -- results of a colour --.

Claim 11, line 1: "for providing software" should be -- for providing the software --.

Claims 12-13, line 1 respectively: "A medium" should be -- The medium --.

Appropriate correction is required.

***Claim Rejections - 35 USC § 101***

8. Claims 10-13 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 10-13 are drawn to functional descriptive material NOT claimed as residing on a computer readable medium. MPEP 2106.IV.B.1(a) (Functional Descriptive Material) states:

“Data structures not claimed as embodied in a computer-readable medium are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer.”

“Such claimed data structures do not define any structural or functional interrelationships between the data structure and other claimed aspects of the invention which permit the data structure's functionality to be realized.”

Claims 10-13, while defining a “computer software”, a “medium”, a “transmission medium”, and a “storage medium”, don't define a “computer-readable medium” and is thus non-statutory for that reason. A “computer software”, a “medium”, a “transmission medium”, and a “storage medium” can range from paper on which the program is written, to a program simply contemplated and memorized by a person. The examiner suggests amending the claim to embody the program on “computer-readable medium” in order to make the claim statutory. Claims 10-13 respectively should be -- A computer-readable medium encoded with computer-readable instructions for carrying out a method according to claim 9 --.

“In contrast, a claimed computer-readable medium encoded with the data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory.”  
- MPEP 2106.IV.B.1(a)

***Claim Rejections - 35 USC § 112***

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 5-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Re Claim 5, line 1: The limitation "which said degree of softness" lacks clear antecedent basis. It is suggested to be -- which a degree of softness --.

Claims 6-8 are dependent upon claim 5.

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claims 1-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Rai (EP 0 947 956 A2).

Re Claim 1: Rai discloses a digital image processing apparatus / scene-by-scene for applying pixel-based colour correction / color correction to an input image to generate

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an output image, said apparatus (see Fig. 11, abstract, lines 13-16, col. 10, lines 18-35, col. 11, lines 26-34, col. 12, lines 10-12, col. 15, lines 31-38, 41-43, 45-47, and 52-53, col. 16, lines 53-58, col. 17, lines 1-5, col. 36, lines 31-35, paragraphs [0119]-[0131]) comprising colour correction logic arranged to provide two or more colour correction processes / unprocessed color correction, completely processed color correction, and weighted color correction process each having a respective associated locus / outside color correction zone, inside color correction zone, and the transition zone in a colour space and a respective associated colour mapping operation / no mapping, complete mapping, weighted mapping (see Fig. 11, abstract, lines 13-16, col. 10, lines 18-35, col. 36, lines 31-35, paragraphs [0119]-[0131]); said colour correction processes being arranged as a succession of processes / series so that the results of a colour correction process form the input to a next such process in said succession (see Fig. 11, paragraphs [0119]-[0120]); each colour correction process being operable to detect whether each pixel lies within said respective locus / color correction zone in colour space and, if so / inside color correction zone or in transition zone, to apply said colour mapping operation / color correction to that pixel (see Fig. 11, abstract, lines 13-16, col. 10, lines 18-35, col. 36, lines 31-35, paragraphs [0119]-[0131]); and each colour correction process after a first process in said succession being arranged to inhibit colour mapping in respect of said loci associated with previous processes in said succession / weighted output color value using alpha mixing (see Fig. 11, abstract, lines 13-16, col. 10, lines 18-35, col. 36, lines 31-35, paragraphs [0119]-[0131]).



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Re Claim 2: Rai further discloses each of said colour correction processes is carried out by a separate colour correction processor / several circuit boards or microprocessors that perform the functions of color correcting (see col. 15, lines 31-38, 41-43, 45-47, 52-53).

Re Claim 3: Rai further discloses said locus in colour space of at least one of said colour correction processes includes a soft region / transition zone, said soft region being subject to a partial colour mapping operation / weighted mapping (see Fig. 11, col. 10, lines 18-35, paragraphs [0119]-[0131]).

Re Claim 4: Rai further discloses said colour mapping operation of a subsequent process having a locus / zone in colour space overlapping with said soft region is only partially inhibited / transition zone in the region overlapping said soft region (see col. 10, lines 18-35, paragraphs [0119]-[0131]).

Re Claim 5: Rai further discloses said degree of softness in a locus in colour space may vary between a first degree of softness / outside the zone meaning alpha mixing is 0%, being indicative that no colour mapping will take place / no color correction processing, and a second degree of softness / inside the zone meaning alpha mixing is 100%, being indicative that complete colour mapping will take place / completely processed color correction (see col. 10, lines 18-35, col. 36, lines 31-35, paragraphs [0119]-[0131]).

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Re Claim 6: Rai further discloses colour mapping by a colour correction process is partially inhibited / transition zone in respect of a region in colour space in which a sum of all degrees / alpha mixing with output color value of softness relating to that region in previous processes in said sequence lies between said first / outside the zone meaning alpha mixing is 0% and second / inside the zone meaning alpha mixing is 100% degrees of softness (see col. 10, lines 18-35, col. 36, lines 31-35, paragraphs [0119]-[0131]).

Re Claim 7: Rai further discloses colour mapping in a process will be completely inhibited / inside the zone in respect of a region in colour space in which said sum of all degrees / alpha mixing with output color value of softness relating to that region in previous processes equals or exceeds said second degree / inside the zone meaning alpha mixing is 100% of softness (see col. 10, lines 18-35, col. 36, lines 31-35, paragraphs [0119]-[0131]).

Re Claim 8: Rai further discloses each process is operable to detect a running total degree / alpha mixing with output color value of softness applied by preceding processes in respect of each position in colour space, and to apply colour correction to an extent / the extent being completely processed color correction no greater than a difference between said running total degree / alpha mixing with output color value of softness and said second degree / inside the zone meaning alpha mixing is 100% of softness (see col. 10, lines 18-35, col. 36, lines 31-35, paragraphs [0119]-[0131]).

As to claim 9, the claim is the corresponding method claim to claim 1 respectively. The discussions are addressed with regard to claim 1.

As to claims 10-13 [as best understood by the Examiner], the claims are the corresponding computer readable medium for storing a program claims to claim 9 respectively. The discussions are addressed with regard to claim 9.

### ***Conclusion***

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Cannata et al discloses a method and system for selective enhancement of image data; Tuijin et al discloses a selective color correction applied to plurality of local color gamuts; Rai et al discloses a primary and secondary color manipulations using hue, saturation, luminance, and area isolation; Agarwala et al discloses real time programmable chroma keying with shadow generation; Kagawa et al discloses color converter and color converting method.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bernard Krasnic whose telephone number is (571) 270-1357. The examiner can normally be reached on Mon-Thur 8:00am-4:00pm and every other Friday 8:00am-3:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jingge Wu can be reached on (571) 272-7429. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Bernard Krasnic  
July 11, 2007



JINGGE WU  
SUPERVISORY PATENT EXAMINER